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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,302

10/16/2006

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UDL-121US

3386

23122 7590 07/06/2009
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EXAMINER

PATTON, AMANDA K

ART UNIT

PAPER NUMBER

3762

MAIL DATE

DELIVERY MODE

07/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,302	Applicant(s) FAIRBANK ET AL.	
	Examiner Amanda Patton	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-22 and 28 is/are pending in the application.
- 4a) Of the above claim(s) 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 8, 2009 has been entered. Currently claims 1-6, 9-22, and 28 are pending in this application, with claim 28 withdrawn from consideration for being drawn to a non-elected invention.

Election/Restrictions

Newly submitted claim 28 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Inventions I (Claims 1-6 and 9-22) and Invention 2 (Claim 28) are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used to practice another and materially different process including a process that does not require the array to be position "on" a user, but rather can be used to stimulate a person's eye, as shown in the rejection below. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

prosecution on the merits. Accordingly, claim 28 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9-10, 16, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al. (USPN 5,911,581).

Regarding **claim 1**, Reynolds discloses the claimed invention including:

- An array of stimulator elements (e.g. visually stimulating elements 254 of Figure 7) arranged to be operated in a plurality of stimulator activation zone configurations to effect localized stimulation of a human body corresponding to each of the activation zone configurations (e.g. each stimulation zone, when activated, will effect localized stimulation of a portion of the human eye); and
- a user interface device (e.g. keyboard not shown) including a selectable array of independent input zones (e.g. right and left arrow keys on the keyboard) spatially relatable to a respective group of stimulator elements (e.g. right and left sides of the stimulator element 254) permitting the user to relate each input zone of the interface device to the respective stimulator element;

- wherein the device is operable in a mode in which the activation zone configuration of the array of stimulator elements is selected independently of the user and the user uses the interface device to identify the activation configuration as perceived by the user by selecting respective independent input zones of said user interface device (e.g. random selection of step 218 in Figure 5-1 and user pressed key of step 230 of Figure 5-2),
- wherein the user interface device is configured to determine if the input zone of the interface device selected by the user matches the activated stimulator activation zone configuration (e.g. correct selection step 234 of Figure 5-2), and
- wherein the user interface device is configured to alert the user as to whether the selected input zone matched the activated stimulator activation zone configurations (e.g. error recorded in step 236 of Figure 5-2 and tabulated in step 248 of Figure 5-1).

Regarding **claims 2-3**, Reynolds teaches that the interface device includes spatial correlation between the input zones and the respective stimulator elements (e.g. right and left keys on the computer keyboard spatially related to the right and left stimulator elements in element 254).

Regarding **claim 4**, Reynolds discloses a screen (e.g. screen of Col. 12, line 9) providing output and/or permitting user input relating to the activation zones of the array of stimulator elements.

Regarding **claim 5-6 and 9**, Reynolds additionally discloses an apparatus operable in a second mode in which user input to the interface device determines the activation zone determines the activation zone configuration of the array of stimulator elements (e.g. a first mode as shown in Figure 8-1 and 8-2 wherein the delay time is random and thus user input to the

interface device does not determine activation temporal activation zone configuration, and a second mode as shown in Figure 5-1 and 5-2 wherein whether the user chooses the correct input determines the presentation time for the next stimulus and switching between the two modes, e.g. steps 238, 244, and 226 of Figure 5-2).

Regarding **claim 10**, Reynolds additionally discloses means for storing results data (e.g. recording 236 of Figure 5-2).

Regarding **claim 16**, Reynolds additionally discloses independent stimulator elements that are arranged grid-wise in rows and columns (e.g. display 254 of Figure 7 that is arranged in an 8 x 1 grid).

Regarding **claim 19**, Reynolds additionally teaches that the activation duration of the independent stimulator elements can be varied (e.g. PT delay 226 of Figure 5-2).

Regarding **claims 20-22**, Reynolds additionally teaches a control arrangement (e.g. computer of Col. 4, lines 6-20 which includes a display that is necessarily attached by wires to the processor) to control the interaction between the interface device and the stimulator element array.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds in view of Havey (USPN 7,308,314).

Regarding **claims 11-15, and 17**, Reynolds discloses the claimed invention except an array of stimulator elements carried in a predetermined relationship on a support member. Havey discloses that it was well known in the art at the time the invention was made to related spatial images into an electro-tactile corset device to be worn by a user (e.g. Figure 14, Col. 12, lines 4-21) wherein the device has barrier zones (e.g. barriers as shown between electrodes 330) and can include vibratory devices (e.g. electromechanical vibrators 270) or an implantable retinal implant (e.g. retinal implant 8; Col. 10, lines 33-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the electro-tactile corset of Havey in the device of Reynolds, since such a modification would provide the system with the ability to test the cognitive reflexes of someone with visual impairment for providing the predictable results of greater usability of the device of Reynolds.

Response to Arguments

Applicant's arguments with respect to claims 1-6 and 9-27 have been considered but are moot in view of the new ground(s) of rejection as necessitated by amendment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda Patton whose telephone number is (571) 270-1912. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AKP/
Examiner, Art Unit 3762

/George R Evanisko/
Primary Examiner, Art Unit 3762